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PATENT

AMENDMENT A

SPECIFICATION AMENDMENTS

At page 3, line 11, through page 4, line 34, please amend the text as follows:

In accordance with one embodiment of the presently claimed invention, a decision feedback equalizer with dynamic feedback control for adaptively controlling a pre-slicer data signal that is sliced to provide a post-slicer data signal includes signal combining circuitry, signal slicing circuitry, decision feedback circuitry and signal differentiation circuitry. First signal combining circuitry combines a feedback signal and an input signal representing a plurality of data to provide a pre-slicer signal. The signal slicing circuitry is coupled to the first signal combining circuitry and slices the pre-slicer signal to produce a post-slicer signal indicative of the plurality of data. The decision feedback circuitry includes input signal timing control, is coupled to the signal slicing circuitry, and feeds back the post-slicer signal in response to a control signal to produce the feedback signal. Second signal combining circuitry is coupled to the signal slicing circuitry and combines the pre-slicer and post-slicer signals to produce a difference signal indicative of a difference between the pre-slicer and post-slicer signals. The signal differentiation circuitry includes a selected signal delay and differentiates and delays the input signal to produce a resultant signal, wherein respective portions of the differentiated-resultant signal are delayed relative to corresponding portions of the input signal by the selected signal delay. Third signal combining circuitry is coupled to the second signal combining circuitry and the signal differentiation circuitry, and combines the difference signal and the resultant signal to produce the control signal, wherein the selected signal delay is selected such that the control signal has a substantially zero AC signal component.

In accordance with another embodiment of the presently claimed invention, a

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decision feedback equalizer with dynamic feedback control for adaptively controlling a pre-slicer data signal that is sliced to provide a post-slicer data signal includes signal combiner means, signal slicer means, decision feedback means and signal differentiator means. First signal combiner means is for combining a feedback signal and an input signal representing a plurality of data and generating a pre-slicer signal. The signal slicer means is for slicing the pre-slicer signal and generating a post-slicer signal indicative of the plurality of data. The decision feedback means is for controlling signal timing by feeding back the post-slicer signal in response to a control signal and generating the feedback signal. Second signal combiner means is for combining the pre-slicer and post-slicer signals and generating a difference signal indicative of a difference between the pre-slicer and post-slicer signals. The signal differentiator means includes a selected signal delay and is for differentiating and delaying the input signal and generating a resultant signal, wherein respective portions of the ~~differentiated~~-resultant signal are delayed relative to corresponding portions of the input signal by the selected signal delay. Third signal combiner means is for combining the difference signal and the resultant signal and generating the control signal, wherein the selected signal delay is selected such that the control signal has a substantially zero AC signal component.

In accordance with another embodiment of the presently claimed invention, a method for providing decision feedback equalization with dynamic feedback control for adaptively controlling a pre-slicer data signal that is sliced to provide a post-slicer data signal includes:

combining a feedback signal and an input signal representing a plurality of data and generating a pre-slicer signal;

slicing the pre-slicer signal and generating a post-slicer signal indicative of the plurality of data;

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feeding back the post-slicer signal with controlled signal timing in response to a control signal and generating the feedback signal;

combining the pre-slicer and post-slicer signals and generating a difference signal indicative of a difference between the pre-slicer and post-slicer signals;

differentiating and delaying the input signal and generating a resultant signal, wherein respective portions of the ~~differentiated~~ resultant signal are delayed relative to corresponding portions of the input signal by a selected signal delay; and

combining the difference signal and the resultant signal and generating the control signal, wherein the selected signal delay is selected such that the control signal has a substantially zero AC signal component.

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